



**Delaware River Basin Commission**

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**Carol R. Collier**  
 Executive Director

**Robert Tudor**  
 Deputy Executive Director

**MINUTES  
 WATER QUALITY ADVISORY COMMITTEE  
 AUGUST 3, 2010**

**ATTENDEES:**

<b>Members:</b> <b>NYS DEC (via telephone)</b> Scott Stoner	<b>DE DNREC</b> (Not in attendance)
<b>NJ DEP</b> Debra Hammond	<b>PA DEP (via telephone)</b> Thomas Barron (Committee Chair)
<b>EPA</b> EPA, Region III (Not in attendance) Wayne Jackson, EPA, Region II (via telephone)	<b>Academia Representative</b> John Jackson, Stroud Water Res. Center
<b>Environmental Organization Representatives</b> (Not in attendance)	<b>Regulated Community Representatives</b> Alfred Pagano, E.I. DuPont (via telephone) Sean Duffy, City of Wilmington
<b>National Park Service</b> Allan Ambler	<b>Local Watershed Organization</b> (Not in attendance)
<b>DRBC:</b> Pamela Bush, Asst. General Counsel Gregory Cavallo, Geologist Robert Conway, Geologist/Hydrologist Eric Engle, Geologist/Hydrologist Thomas Fikslin, Manager, Modeling, Monitoring, & Assessment David Kovach, Geologist/Hydrologist Kenneth Najjar, Manager, Plan. & Info. Tech. Jessica Sanchez, Basin Planner John Yagecic, Supervisor, Stds. & Assmt.	<b>Other Attendees:</b> Jason Cruz, Philadelphia Water Dept. Jacob Gibs, USGS Bob Hoke, DuPont  Heidi Biggs, PA DEP (via telephone) Rodney McAllister, PA DEP (via telephone) Bonita Moore, PA DEP (via telephone)

The meeting was called to order at 9:40 a.m. by Committee Chair, Thomas Barron.

**Approval of Agenda**

No items were added to the agenda.

**Approval of Minutes**

The Minutes of 6/23/10 were approved with the following changes:

Page 1, Membership, to read “As of the 8/3/10 meeting, the position of Chair passed from John Jackson to Thomas Barron of PA DEP. Colleen Arnold from the City of Wilmington was nominated to serve as Vice-Chair, also to start in August, pending her acceptance. Sean Duffy, who attended the meeting in her absence, will transmit the good news to Colleen.

Page 2, Nutrients, first sentence to read “Erik Silldorff discussed the Point Source Nutrient Monitoring in the Delaware Estuary as part of the interim protective measures.”

### **July 2010 Low Dissolved Oxygen Event**

John Yagecic gave a PowerPoint presentation entitled *Review of Low Dissolved Oxygen Water Quality Event in the Delaware Estuary, July 2010*. Dissolved oxygen concentrations at several monitoring stations were below thresholds in early and mid-July. There were also technical issues at the Ben Franklin Bridge, Chester and Trenton monitoring stations. DO Saturation calculations indicated that the unusually high temperatures did not totally explain the low DO concentrations. Spot measurements, including vertical and horizontal transects, were developed by PWD and DRBC for comparison. Possible contributing factors, in addition to the high temperatures, include two weeks of low flows, high productivity, the tidal cycle and possible equipment fouling following a storm event just prior to the low DO readings.

*Task: DRBC will work with USGS and PWD to further investigate the event (including flow and turbidity conditions at Trenton), expedite an alternative deployment for the Ben Franklin Bridge unit, and possible installation of a sonde on a buoy.*

*Task: Continue monitoring conditions.*

*Task: DRBC will also consider how to include the event in the next 305(b) Assessment.*

### **Estuary Point-Source Nutrient Monitoring**

Thomas Fikslin provided an update. Resolution # 2010-5 authorizing the Executive Director to require Point Source Dischargers to Delaware Estuary Zones 2 through 6 to perform data collection and analysis of nutrients and related parameters for a period up to 24 months was passed unanimously by the Commissioners on 7/14/10.

*Task: DRBC and state agency staffs will work together on implementation.*

*Task: DRBC staff to develop notification, data deliverables and data management strategy for estuary point source nutrient monitoring.*

*Task: States to work with DRBC staff on compiling a list to identify which dischargers would be appropriate for nutrient monitoring.*

### **Marcellus Shale Gas Drilling Update**

Pamela Bush provided a status update regarding the progression of DRBC’s approach to Marcellus Gas Drilling.

On June 14, 2010, the Executive Director released a supplement to the May 2009 Executive Director Determination (EDD) employing Commission authority over both exploratory as well as production wells for the extraction of natural gas in all geologic shale underlying the basin, including but not limited to, the Marcellus formation.

On July 23, 2010, the supplemental EDD was amended to allow 2 exploratory wells in Wayne County PA to proceed. The wells had secured PA Erosion and Sediment Control General Permits (ESCGP-1) prior to June 14, but well drilling applications were awaiting final state approval on that date.

A draft rule to regulate natural gas activities in the basin was sent to the Commissioners in July for an initial review. Draft natural gas regulations are expected to be published by the end of summer 2010, with a public rulemaking process to follow.

### **Frac Flowback Water Analytical Results**

John Yagecic gave a PowerPoint presentation entitled *Frac Flowback Water Analytical Results, Preliminary Assessment*. In the Spring of 2010 an assessment of flowback water from hydrofracturing was conducted. The presentation demonstrates that when water is injected and in contact with the geologic formation the quality of the retrieved water is very different from when it goes into the well.

The water for this data set was sampled from 19 sites in 2009, performed by URS for the Marcellus Shale Coalition and coordinated with PADEP, WV and the Appalachian Shale Water Conservation and Management Committee. The background information obtained was data from USEPA.

The water that was retrieved from the well was typically analyzed at 0, 5, 15 (or 14) and 90 days after injection. After injection they continued to retrieve water from the well, although at increasingly diminished volumes and so the data represents different periods after that initial injection.

The returned frac water was analyzed for conventional parameters, VOCs, semi-volatiles, metals, pesticides and PCBs. This particular assessment focused on the conventional parameters and the metals that primarily were detected in the data. Most of the remainder of the data for the VOCs, pesticides and PCBs was non-detect.

For specific hydraulic recovery information, ranking of constituents, frac water TDS, chloride and hardness percentiles please refer to the PowerPoint presentation.

### **WQAC Meetings remaining for 2010**

- October 19<sup>th</sup>

### **Meeting Adjournment**

Meeting adjourned at 11:50 pm. The next WQAC meeting will be October 19, 2010, at 9:30 am, at the DRBC offices in West Trenton, NJ.